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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/500,124 | 06/25/2004 | Katsuhiko Takahashi | Q81414 | 7360 |

23373 7590 08/30/2007
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| EXAMINER |
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NGUYEN, KHANH TUAN

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| ART UNIT | PAPER NUMBER |
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1751

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08/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/500,124

Applicant(s)

TAKAHASHI ET AL.

Examiner

Khanh T. Nguyen

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 16 August 2007.

2a) ☐ This action is FINAL.

2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1 and 4-24 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1 and 4-24 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 25 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

4) ☐ Interview Summary (PTO-413)

Paper No(s)/Mail Date. _____

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/16/2007 has been entered.

Response to Amendment

Claims 1 and 4-23 are currently pending with claims 2 and 3 cancelled from further consideration in the instant application. Claim 24 is added.

Withdrawn Rejection

The prior art rejections mailed on 05/16/2007 are withdrawn in view of Applicant's amendment and argument. However, upon further consideration, a new ground(s) of rejection is made in view of Kodas et al. (U.S. Pat. 6,951,66).

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 08/16/2007 has been regarded by Examiner and made of record in the application file.

Drawings

The drawing(s) submitted on 06/25/2004 has been regarded by Examiner and made of record in the application file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, and 4-21 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kudas et al. (U.S Pat. 6,951,66 hereinafter, "Kudas").

With respect to claims 1, 4, 5, 10 and 14-19, Kudas discloses an electrically conductive paste (i.e. precursor composition) comprising of metal precursor, solvents, micron-sized particles having an average size of at least about 0.1 micron (Col. 4, lines 24-25 and Col. 24, lines 45-48), nanoparticles having average size from about 10 to 80 nanometer (Col. 4, lines 27-28), vehicles, reducing agent and other additives such as dispersant (Col. 2, lines 58-61 and Col. 4, lines 15-20). Kudas also discloses silver metal precursor are preferred, in particular, silver nitrate, silver oxide and silver carbonate (Table 1, Col. 8, lines 63-67 and Col. 14, lines 18-19). The reference further discloses a inducing agent (i.e. reducing agent) such as alpha terpineol or other low vapor pressure solvent such as diethylene glycol, ethylene glycol, hexylene glycol, NMP, tri(ethylene glycol) dimethyl ethermay and ethylene glycol diacetate capable of reducing silver oxide to silver at low temperature (Col. 13, lines 57-64, Col. 15, lines 46-53 and Table 4). The reducing agent is preferably at least about 20-60 weight percent (Col. 15, lines 21-28). Kudas discloses the electrically conductive paste composition may be printed onto a substrate (Col. 29, lines 10-21) and follow by heat treatment (Col. 29, lines 45-50).

The reference specifically or inherently meets each of the claimed limitations.
The reference is anticipatory.

Regarding claim 20, Kodas further discloses a dispersant selected from styrene allyl alcohol, ethyl cellulose, carboxyl methylcellulose, nitrocellulose, polyalkylene carbonates, ethyl nitrocellulose and the like (Col. 20, lines 14-55).

Regarding claim 21, Kodas discloses an electrically conductive paste having a viscosity of at least about 1000 centipoise, which is equal to 10 poise (Abstract).

Regarding claims 6-9, 11-13, 22 and 23, these claims contain phrases such as "obtained by," "used to obtain" and "produced by" are considered to be product by process claims. The subject matter would have been obvious to the skilled artisan because the patentability of a product by process claim does not depend on its method of production and where the examiner has found a similar product, the burden rests with the applicant to prove that that product is patentably distinct. See *In re Thorpe*, 227 USPQ 964 (CAFC 1985); *In re Marosi et al*, 218 USPQ 289; *In re Pilkington*, 162 USPQ 145. "The lack of physical description in a product-by-process claim makes the determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed and not the process that must be established. We are therefore of the opinion that when the prior art discloses a product which reasonably appears to be identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or 103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture

products by the myriad processes put before it and then obtain prior art products and make physical comparisons therewith." In re Brown, 173 USPQ 685,688 (CCPA 1972).


Regarding claim 24, it has been held that the recitation that an element is "adapted to" perform or is "capable of" performing a function is not a positive limitation but only requires the ability to so perform. The recitation of a new intended use for an old product does not make a claim to that old product patentable, see In re *Schreiber*, 44 USPQ2d 1429 (Fed. Cir. 1997).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh T. Nguyen whose telephone number is (571) 272-8082. The examiner can normally be reached on Monday-Friday 8:00-5:00 EST PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


KTN
08/20/2007


Mark Kopec
Primary Examiner